

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-13 (cancelled).

Claim 14. (new): An assay for selecting a compound useful for treating epilepsy or other neurological disorders which modulates inactivation of a sodium channel comprising:

- a) an SCN3A nucleic acid sequence which encodes an SCN3A sodium channel or a functional fragment thereof; and
- b) assaying a function of said sodium channel;

wherein a compound is selected when a difference is observed between the inactivation of said sodium channel in the presence of a test agent, as compared to in the absence thereof.

Claim 15. (new): The method of claim 14, wherein said SCN3A nucleic acid sequence is a mammalian SCN3A sequence.

Claim 16. (new) An assay for selecting a compound useful for treating epilepsy or other neurological disorders which modulates the activity of a sodium channel comprising:

- a) an SCN3A nucleic acid sequence which encodes an SCN3A sodium channel or a functional fragment thereof; and
- b) assaying an activity of said sodium channel;

wherein a compound is selected when a difference is observed between the activity of said sodium channel in the presence of said test agent, as compared to in the absence thereof.

Claim 17. (new): The assay of claim 16, wherein said SCN3A nucleic acid sequence is a mammalian SCN3A sequence.

Claim 18. (new): The assay of claim 17, wherein said SCN3A nucleic acid sequence is a mammalian SCN3A sequence.

Claim 19. (new): The assay of claim 18, wherein said mammalian SCN3A nucleic acid sequence is selected from among mouse, rat and human SCN3A.

Claim 20. (new): The assay of claim 19, wherein said mammalian SCN3A nucleic acid sequence is human.

Claim 21. (new): The assay of claim 20, wherein said SCN3A nucleic acid sequence is a human sequence comprising SEQ ID NO:400, SEQ ID NO:401, SEQ ID NO: 402, SEQ ID NO: 403, SEQ ID NO: 404, SEQ ID NO: 405, SEQ ID NO: 406 or SEQ ID NO: 407, or an allelic variant thereof, or 95% sequence identity to SEQ ID NO:400, SEQ ID NO:401, SEQ ID NO: 402, SEQ ID NO: 403, SEQ ID NO: 404, SEQ ID NO: 405, SEQ ID NO: 406 or SEQ ID NO: 407.

Claim 22. (new): The assay of claim 21, wherein said SCN3A nucleic acid sequence is SEQ ID NO: 65, SEQ ID NO: 66, SEQ ID NO: 69, SEQ ID NO:70, SEQ ID NO: 71, SEQ ID NO: 72, SEQ ID NO:73, SEQ ID NO: 74, SEQ ID NO: 75, SEQ ID NO: 76, SEQ ID NO: 77, SEQ ID NO:78, SEQ ID NO: 79, SEQ ID NO: 80, SEQ ID NO: 81, SEQ ID NO: 82, SEQ ID NO: 83, SEQ ID NO: 84, SEQ ID NO: 85, SEQ ID NO: 86, SEQ ID NO: 87, SEQ ID NO: 88, SEQ ID NO: 89, SEQ ID NO: 90, SEQ ID NO: 91, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, or SEQ ID NO: 98, or an allelic variant thereof.

Claim 23. (new): The assay of claim 21, wherein said sequence has 95% sequence identity to SEQ ID NO:400, SEQ ID NO:401, SEQ ID NO: 402, SEQ ID NO: 403, SEQ ID NO: 404, SEQ ID NO: 405, SEQ ID NO: 406 or SEQ ID NO: 407.

Claim 24. (new): The assay of claim 16, wherein said SCN3A nucleic acid sequence encodes an amino acid sequence comprising SEQ ID NO: 67 or SEQ ID NO: 68, or a fragment thereof.

Claim 25. (new): The assay of claim 16 wherein said assaying is performed in a cell-free system.

Claim 26. (new): The method of claim 16 wherein said assaying is performed with a whole cell.

Claim 27. (new): The method of claim 16 wherein said screening assay is a cell-free system.

Claim 28. (new): The method of claim 16, wherein said SCN3A sequence is a recombinant form of SCN3A.

Claim 29. (new): A method for identifying, from a library of test compounds, a compound having a therapeutic effect on epilepsy or other neurological disorders comprising:

- a) providing a screening assay which comprises a measurable SCN3A biological activity;
- b) contacting said screening assay with a test compound; and
- c) detecting if said test compound modulates said SCN3A biological activity;

wherein a test compound which modulates said biological activity is identified as a compound with said therapeutic effect.

Claim 30. (new): The method of claim 29, wherein said assay comprises an expression vector comprising an SCN3A nucleic acid sequence which encodes said sodium channel or functional fragment thereof.

Claim 31. (new): The method of claim 29, wherein said screening assay is a whole cell system.

Claim 32. (new): The method of claim 29, wherein said SCN3A nucleic acid sequence is comprised in an expression vector.

Claim 33. (new): The method of claim 32 wherein said expression vector is comprised in a cell.